

## CHECKSUM CALCULATOR

### ABSTRACT OF THE DISCLOSURE

5 A checksum calculator employs a tree structure of reduction stages to process words of a  
checksum data array. The number of words in the checksum data array is compared to the number of  
words each of the reduction stages might process. If the number of words in the checksum data array is  
greater than the number of words that the highest level reduction stage might process, then a portion of the  
checksum data array is processed, remaining words of the checksum data array are appended to the  
processed portion, and the process is repeated. If the number of words in the checksum data array is less  
10 than or equal to the number of words that the highest level reduction stage might process, then the  
checksum data array is processed by the lowest level reduction stage that can process the entire checksum  
data array.